Remarks

The Office Action mailed September 20, 2004 has been carefully reviewed and the following remarks have been made in consequence thereof.

Applicant wishes to thank the Examiner for the courtesies extended during a teleconference on October 1, 2004. During the teleconference, the Examiner stated that the Office Action was made final.

Claims 1-4 and 6-20 are now pending in this application. Claims 1-20 are rejected. Claim 5 has been canceled without prejudice, waiver, or disclaimer. Claims 1-4, 6, 7, 9, 11, 15, and 19 have been amended. No new matter has been added.

The rejection of Claims 1, 2, 7-12, 15, 16, and 18-20 under 35 U.S.C. § 102(e) as being anticipated by Ross et al. (U.S. Patent Publication No. 2002/0169523) is respectfully traversed.

Ross et al. describe a method including initially assuming that all power plants have equal capacity and thus, dividing a UTILITY DISPATCH request value by a number of fuel cell power plants (n) to obtain an initial "per power plant" dispatch value (paragraph 36). The method further includes comparing a Kw capacity signal for a first power plant (18) with an initial "per power plant" dispatch value and, if sufficient capacity exists, the method including placing the requested value in that power plant's power dispatch register (paragraph 36). The same is done for the remaining fuel cell power plants (#2 through n) (paragraph 36). If a particular fuel cell power plant is limited and can not supply the full requested "per power plant" dispatch value, then it is loaded to its power-limited capacity and the remainder is stored in an overflow register or the like (paragraph 36). When all the fuel cells have been polled and loaded based on their respective kilowatt generating capacities, then the Kw amount accumulated and stored in the overflow register is distributed amongst the fuel cells with remaining, or extra, power generating capacity (paragraph 36). This process continues iteratively until either the entire dispatch request has been assigned to the power plants or no additional capacity remains for the overflow dispatch request (paragraph 36). If the latter occurs, an alarm message is sent to a

utility's dispatch center via a line (58), stating that the power request exceeds the current generating capacity of a site (paragraph 36).

Claim 1 recites a method for supplying power, the method comprising "supplying power to at least one critical device; supplying power to at least one essential device; remotely removing power to the at least one essential device while maintaining power to the at least one critical device, wherein said remotely removing power comprises remotely discontinuing power on receiving an instruction via the Ethernet to remotely remove power; and storing power in a storage device when a supply of power to the at least one essential device is discontinued."

Ross et al. do not describe or suggest a method for supplying power as recited in Claim 1. Specifically, Ross et al. do not describe or suggest storing power in a storage device when a supply of power to the at least one essential device is discontinued. Rather, Ross et al. describe storing a remainder of power in an overflow register if a particular fuel cell power plant is limited and cannot supply the full requested "per power plant" dispatch value. Ross et al. also describe continuing the storing iteratively until either the entire dispatch request has been assigned to the power plants or no additional capacity remains for the overflow dispatch request. Accordingly, Ross et al. do not describe or suggest storing power in a storage device when a supply of power to a device is discontinued. For the reasons set forth above, Claim 1 is submitted to be patentable over Ross et al.

Claim 2 depends from independent Claim 1. When the recitations of Claim 2 are considered in combination with the recitations of Claim 1, Applicant submits that Claim 2 likewise is patentable over Ross et al.

Claim 7 recites an energy management system comprising "a generation module; a first set of at least one power distribution unit remote from said generation module and communicatively coupled to said generation module, wherein at least one of said at least one power distribution unit in the first set is connected to at least one essential device; a master control system remote from said generation module and said at least one power distribution unit in the first set, said master control system communicatively coupled to said generation module and said at least one power distribution unit in the first set; and an energy storage system configured to store

power when said at least one power distribution unit in the first set discontinues supplying power to the at least one essential device."

Ross et al. do not describe or suggest an energy management system as recited in Claim 7. Specifically, Ross et al. do not describe or suggest an energy storage system configured to store power when the at least one power distribution unit in the first set discontinues supplying power to the at least one essential device. Rather, Ross et al. describe storing a remainder of power in an overflow register if a particular fuel cell power plant is limited and cannot supply the full requested "per power plant" dispatch value. Ross et al. also describe continuing the storing iteratively until either the entire dispatch request has been assigned to the power plants or no additional capacity remains for the overflow dispatch request. Accordingly, Ross et al. do not describe or suggest an energy storage system configured to store power when a supply of power to a device is discontinued. For the reasons set forth above, Claim 7 is submitted to be patentable over Ross et al.

Claims 8-12, 15, 16, and 18 depend, directly or indirectly, from independent Claim 7. When the recitations of Claims 8-12, 15, 16, and 18 are considered in combination with the recitations of Claim 7, Applicant submits that Claims 8-12, 15, 16, and 18 likewise are patentable over Ross et al.

Claim 19 recites an energy management system comprising "a generation module comprising at least two power sources; at least two power distribution units remote from said generation module and communicatively coupled to said generation module, at least one of said power distribution units connected to at least one critical device, remaining of said power distribution units connected to at least one essential device; a master control system remote from said generation module and said power distribution units, said master control system communicatively coupled to said generation module and said power distribution units, said master control system configured to remotely monitor said generation module and instruct the remaining of said power distribution units connected to the at least one essential device to stop supplying power to the at least one essential device; and an energy storage system configured to store power when the remaining of said power distribution units connected to the at least one essential device is not supplying power to the at least one essential device."

Ross et al. do not describe or suggest an energy management system as recited in Claim 19. Specifically, Ross et al. do not describe or suggest an energy storage system configured to store power when the remaining of said power distribution units connected to the at least one essential device is not supplying power to the at least one essential device. Rather, Ross et al. describe storing a remainder of power in an overflow register if a particular fuel cell power plant is limited and cannot supply the full requested "per power plant" dispatch value. Ross et al. also describe continuing the storing iteratively until either the entire dispatch request has been assigned to the power plants or no additional capacity remains for the overflow dispatch request. Accordingly, Ross et al. do not describe or suggest an energy storage system configured to store power when a supply of the power to the device is discontinued. For the reasons set forth above, Claim 19 is submitted to be patentable over Ross et al.

Claim 20 depends from independent Claim 19. When the recitations of Claim 20 are considered in combination with the recitations of Claim 19, Applicant submits that Claim 20 likewise is patentable over Ross et al.

For at least the reasons set forth above, Applicant respectfully requests that the Section 102 rejection of Claims 1, 2, 7-12, 15, 16, and 18-20 be withdrawn.

The rejection of Claims 3-6, 13, 14, and 17 under 35 U.S.C. § 103(a) as being unpatentable over Ross et al. and further in view of Lansberry et al. (U.S. Patent No. 6,452,289) is respectfully traversed.

Ross et al. is described above. Lansberry et al. describe fuel cells that cannot respond immediately to sharp increases in demand (column 1, lines 33, 34). Batteries, which have an immediate response time, store rather than produce energy hence are only good until the battery has drained (column 1, lines 34-36). Moreover, battery cost is directly proportional to the stored energy needed (column 1, lines 36-37). Batteries are used to provide peak power, and a fuel cell is used to provide a continuous power, as well as to keep the battery charged (column 1, lines 37-40). The battery, e.g., a lead acid battery, a monopolar or bipolar lithium metal sulfide battery, or the like, which responds to load demands that are high peak or abnormal until a fuel cell has powered up to meet the load demand itself (column 6, lines 63-67). Typically, this takes several seconds (column 6, line 67 – column 7, line 1). The

battery is sized to provide anomalous, peak power to which the fuel cell cannot respond immediately, but can respond within design capabilities (column 7, lines 1-3). The battery can supply additional continuous power within the limits of its energy storage (column 7, lines 3-5).

Claim 5 has been canceled. Claims 3,4, and 6 depend, directly or indirectly, from independent Claim 1 which recites a method for supplying power, the method comprising "supplying power to at least one critical device; supplying power to at least one essential device; remotely removing power to the at least one essential device while maintaining power to the at least one critical device, wherein said remotely removing power comprises remotely discontinuing power on receiving an instruction via the Ethernet to remotely remove power; and storing power in a storage device when a supply of power to the at least one essential device is discontinued."

Neither Ross et al. nor Lansberry et al., considered alone or in combination, describe or suggest a method for supplying power as recited in Claim 1. Specifically, neither Ross et al. nor Lansberry et al., considered alone or in combination, describe or suggest storing power in a storage device when a supply of power to the at least one essential device is discontinued. Rather, Ross et al. describe storing a remainder of power in an overflow register if a particular fuel cell power plant is limited and cannot supply the full requested "per power plant" dispatch value. Ross et al. also describe continuing the storing iteratively until either the entire dispatch request has been assigned to the power plants or no additional capacity remains for the overflow dispatch request. Lansberry et al. describe using a fuel cell to provide a continuous power and to keep a battery charged. Lansberry et al. also describe providing, by the battery, peak power to which the fuel cell cannot respond immediately. Accordingly, neither Ross et al. nor Lansberry et al., considered alone or in combination, describe or suggest storing power in a storage device when a supply of power to a device is discontinued. For the reasons set forth above, Claim 1 is submitted to be patentable over Ross et al. in view of Lansberry et al.

When the recitations of Claims 3, 4, and 6 are considered in combination with the recitations of Claim 1, Applicant submits that dependent Claims 3,4, and 6 likewise are patentable over Ross et al. in view of Lansberry et al.

Claims 13, 14, and 17 depend, directly or indirectly, from independent Claim 7 which recites an energy management system comprising "a generation module; a first set of at least one power distribution unit remote from said generation module and communicatively coupled to said generation module, wherein at least one of said at least one power distribution unit in the first set is connected to at least one essential device; a master control system remote from said generation module and said at least one power distribution unit in the first set, said master control system communicatively coupled to said generation module and said at least one power distribution unit in the first set; and an energy storage system configured to store power when said at least one power distribution unit in the first set discontinues supplying power to the at least one essential device."

Neither Ross et al. nor Lansberry et al., considered alone or in combination, describe or suggest an energy management system as recited in Claim 7. Specifically, neither Ross et al. nor Lansberry et al., considered alone or in combination, describe or suggest an energy storage system configured to store power when the at least one power distribution unit in the first set discontinues supplying power to the at least one essential device. Rather, Ross et al. describe storing a remainder of power in an overflow register if a particular fuel cell power plant is limited and cannot supply the full requested "per power plant" dispatch value. Ross et al. also describe continuing the storing iteratively until either the entire dispatch request has been assigned to the power plants or no additional capacity remains for the overflow dispatch request. Lansberry et al. describe using a fuel cell to provide a continuous power and to keep a battery charged. Lansberry et al. also describe providing, by the battery, peak power to which the fuel cell cannot respond immediately. Accordingly, neither Ross et al. nor Lansberry et al., considered alone or in combination, describe or suggest an energy storage system configured to store power when a supply of power to a device is discontinued. For the reasons set forth above, Claim 7 is submitted to be patentable over Ross et al. in view of Lansberry et al.

When the recitations of Claims 13, 14, and 17 are considered in combination with the recitations of Claim 7, Applicant submits that dependent Claims 13, 14, and 17 likewise are patentable over Ross et al. in view of Lansberry et al.

For at least the reasons set forth above, Applicant respectfully requests that the Section 103 rejection of Claims 3-6, 13, 14, and 17 be withdrawn.

For at least the reasons set forth above, Applicant respectfully requests that the rejections of Claims 3-6, 13, 14, and 17 under 35 U.S.C. 103(a) be withdrawn.

In view of the foregoing amendment and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,

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